

REMARKS

Claims 1-14 are of record. Several of the claims have been amended in an editorial manner to make them read more clearly.

Claim 1 has been amended to incorporate the subject matter of claim 3. That is, the claim has been amended to recite that the density of the windings varies along the length of the carrier. This achieves a desired heating pattern or picture. Claim 14 also has been amended in a similar manner.

In accordance with the invention, the heating element is the core of varying winding density to achieve a certain "heating picture" in the area where the heating element contacts the smoothing plate of the screed. As disclosed in the application, there might be other structures fixed to the smoothing plate in the vicinity of the heating element, e.g., metallic parts, which form a sort of heat sink. In those regions at least a part of the heat transferred from the heating element into the smoothing plate could be deviated or dissipated such that the lower active surface of the smoothing plate would be less hot in those regions. The varying winding density allows to increase or decrease the heating power or heating efficiency per surface unit where this is appropriate to achieve a uniform heating picture despite the presence of other heat consuming or heat dissipating components on the upper surface of the smoothing plate.

Claim 14 is rejected as anticipated by Desolge, U.S. 5,359,179. Claim 14 calls for a first and at least a second heating conductor spirally wound around the carrier with the density and/or course of the windings being varied for each to produce a predetermined non-uniform heating picture. The advantage of this is described above.

Desolge does not disclose "at least one second heating conductor". Column 5, lines 54-69 explains that the pair of bifilar electrical resistance wires 22 and 24 are welded together at the respective opposite ends thereof so as to create a closed loop therebetween. This joined wire arrangement is then severed at the predetermined intermediate location as desired, thereby forming an electrical circuit having only two terminal end portions 28, 30, as was shown in Figs. 1 and 2.

This means that in the final product there is only a single heating conductor. The winding density is not discussed in the publication. Fig. 2 clearly shows that the winding density does not vary over the length of the carrier. Also, Desolge does not disclose to vary the winding density of a heating conductor in a planar heating element.

Therefore, claim 14 defines a structure different from what is shown in Desolge. Since the structure is novel and advantageous, claim 14 is patentable and should be allowed.

Claims 1, 3-6 and 9-13 are rejected over Birtchet, U.S. 5,417,516 in view of Desolge. Claim 3 has been cancelled. Claims 2 and 7-8 are rejected on the same basis. Claim 1 roughly parallels claim 14 in that it recites that the heating conductor is wound in a spiral around a planar carrier with the shape of the carrier, the winding density and/or winding carrier made to produce a non-uniform heating picture. Claims 4-6 and 9-13 depend from claim 1, as do claims 2 and 7-8.

Birtchet discloses a screed 16 with left and right heating elements 36. Each heating element has a body 38 of elastomeric material. Column 6, lines 17-33. Birtchet does not disclose any particular type of windings for his element. Also, there is no description in Birtchet of varying the planar carrier around which the density and/or course of winding to produce a predetermined non-uniform heating picture.

DeSolge is combined with Birchet to show a planar carrier on which the coils are wound. As discussed above, Desolge makes no mention of a pair of windings. That is, as discussed above, Desolge has a single winding. Further as discussed above, Desolge does not teach winding density and/or course selection to produce a predetermined non-uniform heating picture. Therefore, the combination of these two references does not teach or suggest the novel subject matter of claims 1, 4-6 and 9-13.

Accordingly, these claims define a structure not shown or suggested in the combination of references. Therefore, these claims also are patentable and should be allowed.

A new claim 15 has been added. The claim depends from claim 1 and further recites that the winding comprises a pair of wires that are spaced apart. This arrangement makes the heating picture produced by the varying carrier shape and/or course or density of the wires more evenly

spaced. As discussed above, Desolge makes no mention of a pair of windings. Accordingly, new claim 15 also is patentable and should be allowed.

The other art cited has been considered and is not deemed pertinent.

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue.

Prompt and favorable action is requested.

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Respectfully submitted,

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